<u>REMARKS</u>

Claims 1, 6-8, 10-12, 14, 15, 18-24, 26-30 and 32-34 are currently pending in the subject application and are presently under consideration. Claims 1, 23-24, 27 and 33 have been amended as shown on pp. 2-9 of the Reply. Claims 26 and 32 have been canceled.

Applicant's representative thanks the Examiner for the courtesies extended during the teleconference of March 25, 2008.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I.   Rejection of Claims 1, 6-8, 10-12, 14-15, 18-23 and 32 Under 35 U.S.C. §101

Claims 1, 6-8, 10-12, 14-15, 18-23 and 32 stand rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Independent claim 1 has been amended herein to clearly illustrate that elements within such claims are components associated with a computer processor. In particular, claim 1 as amended is directed towards a system that facilitates finding documentation, comprising *a computer processor* and *memory containing instructions for executing the following components*, a query component, a mapping component and a discovery component, [wherein the *query component, mapping component, and discovery component* perform a function (*e.g.,* receive a user request for technical articles, process the request *via* a parser into functional objects and retrieve technical articles based on these functional objects)]. (Support for these amendments can be found on pg. 6, lines 13-26). Accordingly, this claim includes functional descriptive material within a computer processor, thereby rendering it structurally and functionally interrelated to the computer processor and memory, and is therefore directed to statutory subject matter. Accordingly, this rejection should be withdrawn with regard to claims 1, 6-8, 10-12, 14-15 and 18-23. Claim 32 has been canceled.

II.   Rejection of Claims 23-24, 26-30 and 32-34 Under 35 U.S.C. §103(a)

Claims 23-24, 26-30 and 32-34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sadahiro (U.S. Pat. No. 6,237,136) in view of Hypadapter ("Hypadapter: An Adaptive Hypertext System for Exploratory Learning and Programming" by Hohl *et al.* Published 1996). It is respectfully requested that this rejection be withdrawn for at least the following reasons. Sadahiro and Hypadapter, individually or in combination, do not teach or

suggest each and every element as set forth in the subject claims.

The claimed subject matter relates to automated discovery of information. A software developer, for example, can discover and interpret technology-specific and programming-language-specific functionality utilizing natural and professional languages that may be independent of that employed by the author of the associated technical documentation describing such functionality.

In particular, independent claim 33 recites a method for finding technical documentation, comprising: *receiving a first query string from a user via a query component, the query string comprising terminology of a first vocabulary corresponding to a first programming language,* **the query component receives the first query string as a request for information, the request including at least one of text input, voice encoded input, video camera input, and audio input, wherein the request for information is in the form of a natural language or syntax that is familiar to the user including terms and expressions that have been employed over time by the user; processing the first query string by a parser into functional objects relating to information components that are processed to facilitate desired information retrieval, the functional objects are associated with a decision-theoretic analysis that includes analyzing extrinsic evidence or data of a user's present context state, and directing information in accordance with the data; ... determining an importance value for a retrieved technical document via monitoring at least one of visible technical documentation, search engine activity, and network traffic activity; and further monitoring at least one of a counter, a type of word or phrase employed in a search, an implied or inferred measurement of data activity and an explicit request from users regarding a data source's technical value, ranking or merit.** The cited art, individually or in combination, fails to teach or suggest such aspects of the claimed invention.

Sadahiro relates to generating source code files for an application program in a computer system. A user first produces a code flow description file. A source code file written in a programming language is generated based upon the code flow description file. (*See* Abstract). The code flow description file specifies a process or procedure to be performed employing a data acquisition device. For example, the code flow description files describe which inputs to poll and the processing that is performed with input data. A code generator creates a source code file in a target programming language (*e.g.*, C++, Basic, Java, *etc.*) that can be compiled and/or

executed to carry out the tasks expressed in the code flow description file. (*See* Summary). Thus, Sadahiro discloses mechanisms to convert a program written in pseudo-code format to a program described in a programming language operable on a computer system and does not disclose retrieval of technical information.

In contrast, applicant's claimed subject matter discloses a method that facilitates finding documentation. The method includes a weighted mapping system that enables tracking and mapping of attempts, both successful and unsuccessful, to discover and interpret technology-specific and programming-language-specific functionality using natural and/or professional language. By tracking and mapping developer terminology and navigation, a database of search attempts can be created which is a significant indicator of technical value for selected technical information within a documentation set or other data structure residing in the database. This can be achieved by instrumenting (or monitoring) *via* measurement instruments visible technical documentation, associated search engine activity, and/or and network traffic activity, and then analyzing the results of the instrumentation. Such automated measurements can include counters that measure network and documentation access or frequency. Other measurements can include the type of words employed in a respective search to enable a vocabulary of common terms to be constructed. Other measurements can be implied or inferred (*e.g., via* learning process) from the type of activity encountered. For example, the amount of time that a curser hovers over a particular item or extrinsic evidence of confusion or curiosity (*e.g.,* if a developer copies a data item from a site, may indicate particular value of information as opposed to merely reading data from data site). Still yet other types of measurements may include explicit requests from users regarding a data source's technical value, ranking or merit. (*See* pg. 10, line 22 – pg. 11, line 28).

Sadahiro merely discloses creating source code program files which provide sufficient and consistent documentation elements in the example source code itself regarding what the example does, what functions it uses, its key parameters, and what signal connections to the DAQ device are necessary. (*See* col. 3, lines 12-18). Sadahiro does not disclose a weighted mapping system that enables tracking and mapping of attempts, both successful and unsuccessful, to discover and interpret technology-specific and programming-language-specific functionality using natural and/or professional language. Accordingly, Sadahiro is silent with regard to a method for finding documentation, comprising: …... ***determining an importance***

value for a retrieved technical document via monitoring at least one of visible technical

documentation, search engine activity, and network traffic activity; and further monitoring at

least one of a counter, a type of word or phrase employed in a search, an implied or inferred

measurement of data activity and an explicit request from users regarding a data source's

technical value, ranking or merit.

Hypadapter does not make up for the aforementioned deficiencies of Sadahiro with respect to independent claim 33. Hypadapter relates to an adaptive hypertext system designed to individually support exploratory learning and programming activities in the domain of Common Lisp. endowed with domain-specific knowledge represented in a hyperspace of topics. While browsing through the hyperspace of topics, the system analyzes the user's navigational behavior to infer the user's learning progress and to dynamically adapt presentations of topics and hyperlinks accordingly. (*See* Abstract, Hypadapter).

Whereas, applicant's claimed subject matter discloses a method that facilitates finding documentation. The method includes a discovery tool that receives user input in the form of a request for information (*e.g.,* text, voice encoded speech, video camera input). The requested information can be in the form of a natural language or syntax that is familiar to the user. In other words, terms and expressions that have been employed over time by the user can be utilized to acquire new information relating to a data or document set. User input can be processed by a parser into functional components relating to information components or portions of speech or text that are processed to facilitate desired information retrieval. The parser processes various aspects of languages, whereby a language is a set of sentences. These languages can be processed into a set of strings (ab, aabb, aaabbb, …). After the user input has been parsed, a mapping component analyzes the parsed strings or components in view of one or more functional objects or data residing in a historical data store. (*See* pg. 6, line 27 – pg. 7, line 16).

Hypadapter is merely a hypertext system designed to support programming activities in the domain of Common Lisp. The system builds a detailed model of the user's expertise, which it utilizes to provide personalized assistance. Hypadapter does not disclose a method that receives user input in the form of a request for information. The requested information is in the form of a natural language or syntax that is familiar to the user. For example, terms and expressions that have been employed over time by the user can be utilized to acquire new

information relating to a data or document set. Accordingly, Hypadapter is silent with regard to a method for finding documentation, comprising: … *the request including at least one of text input, voice encoded input, video camera input, and audio input, wherein the request for information is in the form of a natural language or syntax that is familiar to the user including terms and expressions that have been employed over time by the user; processing the first query string by a parser into functional objects relating to information components that are processed to facilitate desired information retrieval, the functional objects are associated with a decision-theoretic analysis that includes analyzing extrinsic evidence or data of a user's present context state, and directing information in accordance with the data; ….*

Further, independent claim 23 recites an information retrieval system, comprising: *means for creating a first object associated with developer terms or phrases learned from past user searching patterns;* **means for receiving a developer's request for functionally equivalent information via a query component, the request comprising terminology of a first vocabulary corresponding to a first programming language, and the request including at least one of text input, voice encoded input, video camera input, and audio input, wherein the request for information is in the form of a natural language or syntax that is familiar to the user including terms and expressions that have been employed over time by the user; means for processing the request by a parser into a functional second object relating to information components that are processed to facilitate desired information retrieval, the second object is associated with a decision-theoretic analysis that includes analyzing extrinsic evidence or data of a user's present context state, and directing information in accordance with the data; …; means for determining an importance value for a retrieved technical document; means for monitoring at least one of visible technical documentation, search engine activity, and network traffic activity; means for monitoring at least one of a counter, a type of word or phrase employed in a search, an implied or inferred measurement of data activity and an explicit request from users regarding a data source's technical value, ranking or merit.**

As stated *supra*, Sadahiro merely discloses creating source code program files which provide sufficient and consistent documentation elements in the example source code itself regarding what the example does, what functions it uses, its key parameters, and what signal connections to the DAQ device are necessary. And, Hypadapter is merely a hypertext system designed to support programming activities in the domain of Common Lisp. The system builds a

detailed model of the user's expertise, which it utilizes to provide personalized assistance. Sadahiro and Hypadapter do not disclose a system that receives user input in the form of a request for information. The requested information is in the form of a natural language or syntax that is familiar to the user. For example, terms and expressions that have been employed over time by the user can be utilized to acquire new information relating to a data or document set.

Further, independent claim 24 recites a method to facilitate automated information retrieval, comprising: *automatically generating a first object set as a function of monitored programmer behavior, the first object set associated with a primary development environment; receiving a developer's request for functionally equivalent information via a query component, the request comprising terminology of a first vocabulary corresponding to a first programming language, and* **the request including at least one of text input, voice encoded input, video camera input, and audio input, wherein the request for information is in the form of a natural language or syntax that is familiar to the user including terms and expressions that have been employed over time by the user; processing the request by a parser into a functional second object set relating to information components that are processed to facilitate desired information retrieval, the second object set is associated with a decision-theoretic analysis that includes analyzing extrinsic evidence or data of a user's present context state, and directing information in accordance with the data;** ...***automatically determining an importance value for a retrieved technical document via monitoring at least one of visible technical documentation, search engine activity, and network traffic activity, and further monitoring at least one of a counter, a type of word or phrase employed in a search, an implied or inferred measurement of data activity and an explicit request from users regarding a data source's technical value, ranking or merit***.

As stated *supra*, Sadahiro merely discloses creating source code program files which provide sufficient and consistent documentation elements in the example source code itself regarding what the example does, what functions it uses, its key parameters, and what signal connections to the DAQ device are necessary. And, Hypadapter is merely a hypertext system designed to support programming activities in the domain of Common Lisp. Sadahiro and Hypadapter do not disclose a method that receives user input in the form of a request for information. The requested information is in the form of a natural language or syntax that is familiar to the user, such as terms and expressions that have been employed over time by the

user.

      In view of the aforementioned deficiencies of the cited art, it is respectfully submitted that this rejection be withdrawn with respect to independent claims 23, 24, 32 and 33 (and claims 26-30 and 34 which depend respectively there from).

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP491US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicant's undersigned representative at the telephone number below.

Respectfully submitted,

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